

Claim Amendments

This listing of the claims will replace all prior versions,
and listings, of claims in the application:

Claims 1 - 13 (cancelled).

Claim 14 (currently amended): An optical module,
comprising:

a circuit carrier;

a non-packaged semiconductor device flip-chip mounted
on said circuit carrier;

a lens unit disposed for projecting electromagnetic
radiation onto said semiconductor device, said lens unit
including a lens holder and a lens assembly with at least
one lens; ~~and~~

said circuit carrier having at least one relatively
thin region and a relatively thick region supporting said
thin region, ~~said thin region and said thick region being
implemented as a molded interconnect device with integrated
conductor tracks ;~~

said lens holder being supported in said thin region
of said circuit carrier; and

said semiconductor device being disposed on an
opposite side of said circuit carrier with respect to said
lens holder and in said thin region of said circuit
carrier.

Claim 15 (currently amended): The optical module
according to claim ~~14~~ 33, wherein said lens holder is
supported in said thin region of said circuit carrier.

Claim 16 (currently amended): The optical module
according to claim ~~14~~ 33, wherein said semiconductor device
is disposed in or adjacent said thin region of said circuit
carrier.

Claim 17 (previously presented): The optical module
according to claim 14, wherein said thick region is at least
partially U-shaped, L-shaped, F-forked, or E-forked or frame-
shaped.

Claim 18 (previously presented): The optical module according
to claim 14, wherein said thick region is a rigid portion of
said circuit carrier.

Claim 19 (previously presented): The optical module according to claim 18, wherein said thick region is a rigid portion of a multilayer printed circuit board.

Claim 20 (previously presented): The optical module according to claim 18, wherein said thick region is a rigid portion of an FR4 circuit board.

Claim 21 (previously presented): The optical module according to claim 14, wherein said thin region is a recessed or milled-out portion of said circuit carrier.

Claim 22 (cancelled).

Claim 23 (previously presented): The optical module according to claim 14, wherein said thin region is a flexible printed circuit board and said thick region is a rigid printed circuit board.

Claim 24 (previously presented): The optical module according to claim 14, which further comprises support elements at least partially formed on said lens holder.

Claim 25 (previously presented): The optical module according to claim 14, wherein said lens holder is connected, in

particular glued, laser-welded, screwed or riveted, to said circuit carrier, preferably adjacently to the support elements.

Claim 26 (previously presented): The optical module according to claim 25, wherein said lens holder is glued, laser-welded, screwed, or riveted to said circuit carrier.

Claim 27 (previously presented): The optical module according to claim 25, wherein said lens holder is connected to said circuit carrier adjacent support elements mounted to said lens holder.

Claim 28 (previously presented): The optical module according to claim 14, wherein said thick region of said circuit carrier forms a part of said lens unit.

Claim 29 (previously presented): The optical module according to claim 28, wherein said thick region of said circuit carrier forms a part of said lens holder and said lens holder is an MID (molded interconnect device) with integrated conductor tracks.

Claim 30 (previously presented): The optical module according to claim 14, wherein:

said semiconductor device is disposed on a side of said circuit carrier facing away from said lens unit; and

said thin region of said circuit carrier is formed with an opening enabling through-projection of electromagnetic radiation from said lens assembly onto said semiconductor device.

Claim 31 (previously presented): An optical system, comprising at least one optical module according to claim 14.

Claim 32 (new): An optical module, comprising:

a circuit carrier;

a non-packaged semiconductor device flip-chip mounted on said circuit carrier;

a lens unit disposed for projecting electromagnetic radiation onto said semiconductor device, said lens unit including a lens holder and a lens assembly with at least one lens;

said circuit carrier having at least one relatively thin region and a relatively thick region supporting said thin region, said thin region being a flexible printed circuit board and said thick region being a rigid printed circuit board.

.

2003P12502 - Application No. 10/573,539
Response to Office action July 22, 2008
Response submitted August 15, 2008

Claim 33 (new): An optical module, comprising:

a circuit carrier;

a non-packaged semiconductor device flip-chip mounted
on said circuit carrier;

a lens unit disposed for projecting electromagnetic
radiation onto said semiconductor device, said lens unit
including a lens holder and a lens assembly with at least
one lens;

said circuit carrier having at least one relatively thin
region and a relatively thick region supporting said thin
region, said thick region defines a frame at least
partially surrounding said thin region, said frame clamping
said thin region.